Meters

Name: _____ Section: 4BL-___ Date performed: __/__/__

Lab station: ____ Partners: _____

Circuit box #____

Part 1: Using the ohmmeter

color code	R_{color} (Ω)	R_{DMM} (Ω) (range)
	$\pm$	$\pm$ ( )
	$\pm$	$\pm$ ( )
	$\pm$	$\pm$ ( )
Light bulb	XXXXXXXXX	$\pm$ ( )

Show uncertainty calculations:

Show discrepancy tests:

Part 2/3: Calculate resistance from current and voltage

Draw circuit diagrams for both 330 Ω resistor and light bulb circuits:

	V (V) (range)	I (mA) (range)	R (Ω)
330 Ω resistor	± ( )	± ( )	±
Light bulb	± ( )	± ( )	±

Show calculations and discrepancy tests:

Explain light bulb result (discussion question):

Part 4: Time permitting...

Measure the light bulb resistance again using the analog ohmmeter (your instructor can show you how to do this):

$R_{\text{LB}} =$ _____ ± _____ (analog, $R \times 10$ setting, ±10%)

$R_{\text{LB}} =$ _____ ± _____ (digital, prior measurement, range:)

Compare the two values and explain: